



Online Ethics Center
FOR ENGINEERING AND SCIENCE

City Engineer - Case No. 88-6

Year

1988

Description

An engineer privately informs other city officials of an environmental threat, a problem her supervisor has ordered her not to disclose.

Body

Facts:

Engineer A is employed as the City Engineer/ Director of Public Works for a medium-sized city and is the only licensed professional engineer in a position of responsibility in the city government. The city has several large food processing plants that discharge very large amounts of vegetable wastes into the city's sanitary system during the canning season. Part of the canning season coincides with the rainy season.

Engineer A has the responsibility for the disposal plant and beds and is directly responsible to City Administrator C. Technician B answers to Engineer A.

During the course of her employment, Engineer A notifies Administrator C of the inadequate capacity of the plant and beds to handle the potential overflow during the rainy season and offers possible solutions. Engineer A has also discussed the problem privately with certain members of the city council without the permission of City Administrator C. City Administrator C has told Engineer A that "we will face the problem when it comes." City Administrator C orders Engineer A to discuss the problems only with him and warns her that her job is in danger if she disobeys.

Engineer A again privately brings the problem up to other city officials. City

Administrator C removes Engineer A from responsibility of the entire sanitary system and the chain of command by a letter instructing Technician B that he is to take responsible charge of the sanitary system and report directly to City Administrator C. Technician B asks for a clarification and is again instructed via memo by City Administrator C that he, Technician B, is completely responsible and is to report any interference by a third party to City Administrator C. Engineer A receives a copy of the memo. In addition, Engineer A is placed on probation and ordered not to discuss this matter further and that if she does she will be terminated.

Engineer A continues in her capacity as City Engineer/Director of Public Works, assumes no responsibility for the disposal plant and beds, but continues to advise Technician B without the knowledge of City Administrator C.

That winter during the canning season, particularly heavy storms occur in the city. It becomes obvious to those involved that if waste water from the ponds containing the domestic waste is not released to the local river, the ponds will overflow the levees and dump all waste into the river. Under state law, this condition is required to be reported to the state water pollution control authority, the agency responsible for monitoring and overseeing water quality in state streams and rivers.

Question:

Did Engineer A fulfill her ethical obligation by informing City Administrator C and certain members of the city council of her concerns?

References:

Code of Ethics - Section I.1.: "Engineers, in the fulfillment of their professional duties, shall hold paramount the safety, health and welfare of the public in the performance of their professional duties."

Section II.1.a.: "Engineers shall at all times recognize that their primary obligation is to protect the safety, health, property and welfare of the public. If their professional judgment is overruled under circumstances where the safety, health, property or welfare of the public are endangered, they shall notify their employer or client and such other authority as may be appropriate."

Section II.4.: "Engineers shall act in professional matters for each employer or client as faithful agents or trustees."

Section III.2.b.: "Engineers shall not complete, sign, or seal plans and/or specifications that are not of a design safe to the public health and welfare and in conformity with accepted engineering standards. If the client or employer insists on such unprofessional conduct, they shall notify the proper authorities and withdraw from further service on the project."

Discussion:

The engineer's obligation to hold paramount the safety, health, and welfare of the public in the performance of his professional duties, is probably among the most basic. Clearly, its importance is evident by the fact that it is the very first obligation stated in the NSPE Code of Ethics. Moreover, the premise upon which professional engineering exists -- the engineering registration process -- is founded upon the proposition that in order to protect the public health and safety, the state has an interest in regulating by law the practice of the profession.

While easily stated in the abstract, the breadth and scope of this fundamental obligation is far more difficult to fix. As we have long known, ethics frequently involves a delicate balance between competing and, oft times, conflicting obligations. However, it seems clear that where the conflict is between one important obligation or loyalty and the protection of the public, for the engineer the latter must be viewed as the higher obligation.

The Board has faced this most difficult issue on two other occasions in somewhat dissimilar circumstances. In Case 65-12, we dealt with a situation in which a group of engineers believed that certain machinery was unsafe, and we determined that the engineers were ethically justified in refusing to participate in the processing or production of the product in question. We recognized in that case that such action

by the engineers would likely lead to the loss of employment.

More recently, in Case [82-5](#), the engineer was employed by a large industrial company and after reviewing plans for materials supplied by a subcontractor, determined that they were inadequate both from a design and a cost standpoint and therefore should be rejected. Thereafter, the engineer advised his superiors of the deficiencies but his recommendations were rejected. The engineer persisted with his recommendations and was placed on probation with the warning that if his job performance did not improve he would be terminated.

In finding that an engineer does not have an ethical obligation to continue an effort to secure a change in the policy of an employer under these circumstances, or to report his concerns to the proper authority, we stated, nevertheless, that the engineer has an ethical "right" to do so as a matter of personal conscience. We emphasized, however, that the case then before us did not directly involve the protection of the public safety, health, and welfare, but rather was an internal dispute between an employer and an employee.

In addition, we found in Case 82-5 that the situation presented has become well known in recent years as "whistleblowing" and if an engineer feels strongly that an employer's course of action is improper when it relates to public concerns, and if the engineer feels compelled to "blow the whistle" to expose the facts as he sees them, he may well have to pay the price of loss of employment. We also commented that in recent years, engineers have gone through such experiences and even if they have ultimately prevailed on legal or political grounds, the experience is not to be taken lightly. We concluded that "the Code only requires that the engineer withdraw from a project and report to proper authorities when the circumstances involve endangerment to the public safety, health and welfare."

Clearly, the case presently before the Board involves "endangerment to the public safety, health and welfare" -- the contamination of the water supply -- and therefore it is clear that Engineer A has an obligation to report the matter to her employer. Under the facts it appears that Engineer A has fulfilled this specific aspect of her obligation by reporting her concerns to City Administrator C and thereafter to certain members of the city council. However, under the facts of this case, we believe Engineer A had an ethical obligation under the Code to go considerably farther.

As noted in Case 82-5 and in the Code, where an engineer determines that a case may involve a danger to the public safety, the engineer has not merely an "ethical right" but has an "ethical obligation" to report the matter to the proper authorities and withdraw from further service on the project. We believe this is particularly clear when the engineer involved is a public servant (city engineer and director of public works).

In the context of this case, we do not believe that Engineer A's act of reporting her concerns to City Administrator C or certain members of the city council constituted a reporting to the "proper authorities" as intended under the Code. Nor do we believe, Engineer A's decision to assume no responsibility for the plant and beds constitutes a "withdrawal from further service on the project."

It is clear under the facts of this case that Engineer A was aware of a pattern of ongoing disregard for the law by her immediate superior as well as members of the city council. After several attempts to modify the views of her superiors, it is our view that Engineer A knew or should have known that the "proper authorities" were not the city officials, but more probably state officials (i.e., state water pollution control authority). We cannot find it credible that a City Engineer/Director of Public Works for a medium-sized town would not be aware of this basic obligation. Engineer A's inaction permitted a serious violation of the law to continue and appeared to make Engineer A an "accessory" to the actions of City Administrator C and the others.

It is difficult for us to say exactly at what point Engineer A should have reported her concerns to the "appropriate authorities." However, we would suggest that such reporting should have occurred at such time as Engineer A was reasonably certain that no action would be taken concerning her recommendations either by City Administrator C or the members of the city council and, that in her professional judgment, a probable danger to the public safety and health then existed.

In addition, we find it troubling that Engineer A would permit her professional integrity to be compromised in the manner herein described. As the legally established city engineer and director of public works, Engineer A allowed her engineering authority to be circumvented and overruled by a non-engineer under circumstances involving the public safety. It is clear that Engineer A had an ethical obligation to report this occurrence to the "proper authorities" as stated above.

In closing, we must acknowledge a basic reality that must confront all engineers faced with similar decisions. As we noted in Cases 65-12 and 82-5, the engineer who makes the decision to "blow the whistle" will in many instances be faced with the loss of employment. While we recognize this sobering fact, we would be ignoring our obligation to the Code and hence to the engineering profession if, in matters of public health and safety, we were to decide otherwise. For an engineer to permit her professional obligations and duties to be compromised to the point of endangering the public safety and health does grave damage to the image and interests of all engineers.

Conclusion:

Engineer A did not fulfill her ethical obligations by informing the City Administrator and certain members of the city council of her concerns.

Board of Ethical Review:

- Eugene N. Bechamps, P.E.
- Robert J. Haefeli, P.E.
- Robert W. Jarvis, P.E.
- Lindley Manning, P.E.
- Paul E. Pritzker, P.E.
- Harrison Streeter, P.E.
- Herbert G. Koogler, P.E.-L.S., chairman

[NSPE Code of Ethics](#) An earlier version may have been used in this case.

Notes

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For a version of this case adapted for classroom use, see: [Whistleblowing City Engineer \(adapted from NSPE Case No. 88-6\).](#)

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